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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ronald P. Knockeart et al. Art Unit : 3662
Serial No. : 10/675,626 Examiner : Gregory C. Issing
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Title : VEHICLE INFORMATION SYSTEM

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Commissioner for Patents
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REPLY BRIEF

The applicant thanks the Examiner for the telephone interviews on May 15, 2006 and May 17, 2006, in which claims 27 and 54, and the Mandhyan reference were discussed.

Pursuant to 37 C.F.R. § 41.41, Appellant responds to the Examiner's Answer as follows.

Claim 27

Claim 27 requires in part:

at the vehicle, receiving a command from the server to enable logging of the traffic related data; ...
... logging traffic-related data ...;
receiving a request to transmit the logged data to the server.

The Mandhyan reference discloses two relevant phases of operation: monitoring phase and calibration phase. In monitoring phase, a probe vehicle receives a signal that instructs the vehicle to report essentially exception

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conditions, for example, when speed on a route deviates from an expected speed[1]. Monitoring phase does not involve logging of data for providing to the server, but may involve recording information, for example, for calculating an average speed on a route[2]. In the calibration phase, a probe vehicle is essentially instructed to log data that is later provided on a physical medium or alternatively over a communication link[3]. There is no suggestion that such logged data would be later requested in a separate command to the vehicle. Mandyhan also discloses that vehicles operating in a monitoring phase can concurrently be operated in a calibration phase, but does not disclose or suggest that the operations in these two phases would be related other than in operating on the same vehicle[4].

The Examiner appears to have two arguments with respect to the rejection of claim 27. The first argument is that, in claim 27, the limitations "receiving a command from the server to enable logging of the traffic related data" and "receiving a request to transmit the logged data to the server" do not have to be separate steps performed in sequence, and can be anticipated by a single step. The Examiner identifies such a single step in Mandhyan in the monitoring phase[5] that includes receiving of a signal at a probe vehicle that (1) activates the probe vehicle to log data, and (2) instructs the probe vehicle to later transmit the logged data.

As the Appellant understands it, the Examiner's second argument is that, even if the limitations "receiving a command from the server to enable logging of the traffic related data" and "receiving a request to transmit the logged data to the server" are separate sequenced steps, they are anticipated by Mandhyan, which discloses operating a probe vehicle in the monitoring phase, and then continuing

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[1] Mandhyan, col. 7, lines 2-6 and 23-26.
[2] Mandhyan, col. 7, lines 21-23.
[3] Mandhyan, col. 5, lines 30-39.
[4] Mandhyan, col. 9, lines 21-24.
[5] Mandhyan, col. 7, lines 30-33: "the computer will automatically activate selected probe vehicles, by messages transmitted over the cellular telephone network, in order to have sufficient number of active probes in each significant segment of a route."

to refine calibration by also using the probe vehicle in the calibration mode (9:21-24).

With respect to the first argument, the Appellant disagrees the step of "receiving a request to transmit the logged data to the server" can be anticipated by a signal that activates a probe vehicle. By using the word "the" and the past tense "logged" in the phrase "the logged data," it is clear that "the logged data" refers the data that has already been logged when the step is performed, not data that will later be logged. Therefore, the limitation "receiving a request to transmit the logged data to the server" requires receiving a request to transmit data that has already been logged, not data that will later be logged after receiving the request. Furthermore, the step of "receiving a command from the server to enable logging of the traffic related data" comes before the logging of the data. Thus, in claim 27, "receiving a command from the server to enable logging of the traffic related data" and "receiving a request to transmit the logged data to the server" are two separate steps, in which the step of receiving a request to transmit the logged data occurs after the step of receiving a command to enable logging of data. The Appellant does not agree that the reference teaches such separate steps.

With respect to the second argument, during the telephone interviews, the Examiner acknowledged Mandhyan does not disclose, while operating in the monitoring phase alone, receiving a request at the vehicle to transmit logged data to the server. Mandhyan also does not disclose, once operating in the calibration phase, receiving a request at the vehicle to transmit logged data to the server. However, the Examiner contends that, because the probe vehicle stores data during the monitoring phase, receiving a command to cause the probe vehicle to operate in the monitoring phase meets the limitation "receiving a command from the server to enable logging of the traffic related data." Because the probe vehicle can subsequently operate in a calibration phase and may transmit stored data to the server during the calibration phase, receiving a command to cause the probe

vehicle to initiate operation in the calibration phase meets the limitation "receiving a request to transmit the logged data to the server."

The Appellant disagrees. Claim 27 recites "receiving a request to transmit the logged data to the server," in which "the logged data" refers to the data that has already been logged prior to receiving the request (i.e., the data referred to in "to enable logging of the traffic related data" and "logging traffic-related data" in other steps). By comparison, Mandhyan discloses, during the calibration phase, logging data at predetermined intervals of time and storing all the data on a floppy disc that is later delivered to the central computer, or, if the distances involved are substantial, delivered to a computer receiving station for transmission over a computer network or a telephone line[6]. The data stored on the floppy are data collected after the probe vehicle enters the calibration mode. Mandhyan does not disclose, during the calibration phase, transmitting to the server the data that were collected during the monitoring phase. Thus, while Mandhyan may have disclosed receiving at the probe vehicle a request to start logging data and to later transmit the data that will be logged after receiving the request, this does not meet the limitation "receiving a request to transmit the logged data to the server," as recited in claim 27.

An advantage of claim 27 is that the server can control the vehicle data collection to limit the rate at which the system receives data from probe vehicles. [specification, paragraph 273]

Claim 54

Regarding claim 54, the Examiner contends that Mandhyan discloses providing a probe vehicle with a stored record of bandwidth patterns for one or all of the routes, which meets the limitation of providing planned routes to the vehicle, as recited in claim 54.

[6] Mandhyan, col. 5, lines 30-39.

The applicant disagrees. Providing the probe vehicle with stored record of bandwidth patterns of one or more routes allows the probe vehicle to detect deviations from the stored bandwidth patterns if the probe vehicle travels the one or more routes. However, the server does not know whether the probe vehicle will actually travel the one or more routes. By comparison, when the server provides a probe vehicle with a planned route, there is an expectation that the probe vehicle will travel the planned route. Therefore, Mandhyan does not disclose or suggest that the server provides planned routes along a road network to a vehicle, and does not disclose or suggest "the server sends to the vehicle the command to enable transmission of the traffic-related data if the server has provided planned routes along the road network to the vehicle," as recited in claim 54.

For these reasons, and the reasons stated in the Appeal Brief, Appellant submits that the final rejection should be reversed.

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Respectfully submitted,

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